

CLAIMS

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1. A method of designing a reagent, which method comprises providing a target, applying the target to ligands which form an array on a solid surface, observing interaction between the ligands and the target, and using the observation to design a reagent to interact with the target.

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2. A method of determining combinations of ligands specific for a target, which method comprises the steps of:

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a) binding at least one ligand to the target, to form a target complex,

b) applying the target complex to other ligands which form an array on a solid surface, under conditions which allow interaction between the other ligands and the target complex, and

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c) identifying at least one other ligand which interacts with the target complex.

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3. A method as claimed in claim 2, comprising the additional step of binding the at least one other ligand to the target complex and then repeating steps b) and c).

4. A method as claimed in any one of claims 1 to 3, wherein the target is a nucleic acid and the ligands are oligonucleotides or oligonucleotide analogues.

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5. A method as claimed in claim 2 or claim 3, wherein one ligand is an oligonucleotide or oligonucleotide analogue and another ligand is a peptide.

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6. A method as claimed in any one of claims 2 to 5, wherein two ligands are joined together by means of a linker.

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- 27 -

7. A method as claimed in any one of claims 4 to 6, wherein the ligands are oligonucleotide analogues modified by the addition or substitution of other chemical moieties selected from oligoaliphatic ethers, intercalating agents, positively charged residues, chelating agents and lipophilic agents.

8. A method as claimed in any one of claims 1 to 7, wherein the ligands form the basis of a ribozyme.

9. A method as claimed in any one of claims 1 to 8, wherein the target and one or more ligands are different chemical types.

10. A method as claimed in any one of claims 1 to 9, wherein at least one ligand becomes covalently bound to the target.

11. A method as claimed in any one of claims 2 to 10, wherein the at least one ligand to be bound to the target to form a target complex in step a), is chosen by mixing the target with a library of ligands and choosing from the library at least one ligand that binds to the target.

12. A method as claimed in any one of claims 1 to 11, wherein the target is an RNA.

13. A method as claimed in any one of claims 1 to 12, wherein the target is a molecule having a secondary or tertiary structure, and is caused to interact with the array of ligands under conditions such that the secondary or tertiary structure is retained.

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